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**PRINCIPAL LAWS AND REGULATIONS
AFFECTING THE CLEANUP PROGRAM
FERNALD ENVIRONMENTAL MANAGEMENT
PROJECT OCTOBER 1993**

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FACTSHEET**

PRINCIPAL LAWS AND REGULATIONS AFFECTING THE CLEANUP PROGRAM

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FERNALD

Environmental Management Project

INTRODUCTION

Several federal laws guide environmental restoration in the United States. Each has a different emphasis, but together they target the most pressing hazardous waste sites in the nation. The **Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)** of 1980 -- also known as Superfund -- provides for the funding, study and implementation of cleanup efforts. In 1986, Congress reauthorized CERCLA as the **Superfund Amendments and Reauthorization Act (SARA)**. The **Resource Conservation and Recovery Act (RCRA)** of 1986 sets the standards for managing hazardous waste facilities and also provides mechanisms for dealing with hazardous waste releases at the sites. The **National Environmental Policy Act (NEPA)** of 1969 requires federal agencies to consider possible environmental effects when making decisions. All three laws require public involvement under a well-defined set of activities and schedules.

The cleanup process is dynamic and flexible, tailored to the specific circumstances of each site. A phased approach is used to help efforts. Researchers first collect available data to learn about the general conditions at a site. As a basic understanding is reached, they begin to identify possible cleanup alternatives. To fill in gaps of information and to test potential cleanup methods, they collect additional data, used to refine alternatives. This interactive process of study goes back and forth between data collection and testing, and the development and refinement of alternatives, until enough information is available to identify sound alternatives. The goal of gathering this information is not to remove all uncertainty -- an impossibility -- but to collect enough information to make and support an informed decision on which remedy appears to be the most appropriate for a given site. The goal of all these principal federal laws is to

protect the safety of human health and the environment.

CERCLA

CERCLA is a federal law passed in 1980 that was amended in 1986. The act created a special tax that goes into a trust fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. These tax dollars are not being used at Fernald. CERCLA addresses sites not covered under RCRA provisions; RCRA's scope is limited to permitted waste management facilities, already monitored by the U.S. Environmental Protection Agency (EPA).

CERCLA consists of three phases:

- 1) a preliminary assessment,
- 2) a thorough study of the site, exploration of alternatives and selection of a remedial action plan, and
- 3) design and implementation of the chosen plan.

■ The CERCLA Preliminary Assessment and Site Inspection (PA/SI) is used to determine which sites should be placed on the National Priorities List (NPL) that identifies the most serious uncontrolled or abandoned hazardous waste sites.

The assessment focuses on the potential for contamination. If the assessment determines that further action is needed, a site inspection is performed to determine the threat to the public and the environment. The site is scored using a brief, on-site investigation. Sites that exceed a certain score are added to the NPL.

The NPL also may list hazardous waste sites named by states as their top priority and sites determined to pose a significant threat to public health, welfare or the environment.

■ A Remedial Investigation and

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Feasibility Study (RI/FS) is conducted for sites placed on the NPL. The RI/FS has several components.

The first stage involves planning. All work performed during the RI/FS follows general principles developed during a scoping, or planning, phase. Existing data on a hazardous waste site is evaluated to develop a cleanup strategy, identify objectives and prepare a work plan. A sampling analysis plan is prepared so that any decisions made are developed using the most accurate and best documented data possible. At Fernald, U.S. EPA approves the sampling analysis and work plans.

The next step is the remedial investigation portion of the cleanup, during which extensive sampling and analysis activities are conducted. The feasibility study, which is performed simultaneously, takes the data and develops a range of alternatives for remediation.

The development and screening of alternatives requires identifying objectives, screening cleanup techniques and evaluating the alternatives. The alternatives must include a broad range of options, and all must be evaluated until they are rejected because of effectiveness, implementability, cost, or community acceptance. This elimination of the less promising alternatives is known as the screening process.

Once all potential alternatives have been developed and screened, the remaining options are evaluated in detail according to nine evaluation criteria developed by U.S. EPA. The alternatives are analyzed individually against each criterion and then compared against one another to determine their respective strengths and weaknesses and to identify the key tradeoffs that must be balanced for that site. One of these nine criterion is community acceptance, which reflects the community's apparent preferences or concerns with the alternatives.

When one alternative is selected, it is entered into a Record of Decision, which states the preferred method and manner of remediation. The record also considers public comments and community concerns. Community acceptance, however, is assessed throughout the RI/FS.

■ A Remedial Design/Remedial Action (RD/RA) is conducted to implement the decision and to monitor the performance of the selected remedy.

RCRA

RCRA created a management system for hazardous waste, requiring that safe and secure procedures be used in treating, transporting, storing and disposing of hazardous wastes. Facilities must have permits to handle these wastes and are required to operate within specific guidelines. In 1984, RCRA was strengthened by the Hazardous and Solid Waste Amendments. Now RCRA allows EPA to require corrective action for continuing releases and releases beyond a waste management facility's boundary.

RCRA focuses on whether releases of hazardous waste have occurred on licensed operating facilities, and requires corrective action if releases are found. A progression of measures, similar to those for CERCLA, is taken to determine if a site requires environmental restoration.

1) The first step is a RCRA Facility Assessment (RFA) to determine if further investigations are necessary. Like the CERCLA PA/SI, the RFA is designed to give an initial characterization of a potentially hazardous site. However, the RFA focuses only on identified releases from individual sites - the PA/SI looks instead for potential off-site releases. In addition, the RFA does not require sampling.

2) If a problem exists, U.S. EPA requires the owner/operator of the site to conduct a RCRA Facility Investigation

(RFI) and corrective measures study (CMS). The nature, extent and rate of contamination are measured, all with U.S. EPA oversight. If the RFI indicates corrective action is needed, the CMS will be performed to identify possible solutions to problems at the site.

The CMS under RCRA is similar to the CERCLA feasibility study. Both identify, develop, evaluate and select remedial action alternatives. However, a CMS may develop just one alternative, while a CERCLA feasibility study requires a full range of alternatives.

3) The last step is to implement one of the solutions through a process called Corrective Measures Implementation (CMI). After U.S. EPA selects the remedy, the owner/operator performs the corrective action, taking appropriate measures to operate and maintain the remedy, and to monitor the results. This stage is similar to the CERCLA RD/RA.

NEPA

NEPA is the federal law that sets basic policy on protecting the environment. The principal purpose of NEPA is to determine if a major federal action has significant environmental effects. NEPA requires federal agencies to evaluate all environmental impacts prior to taking actions.

If an action clearly has no significant impact, a Categorical Exclusion fulfills the obligation. If an action may have environmental consequences, an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) may be necessary. In preparing an EA, data are collected and analyzed to determine whether impacts are sufficient to justify the preparation of the more complete EIS study, or whether a "Finding of No Significant Impact" (FONSI) is appropriate.

If an Environmental Impact Statement is required, NEPA requires public

participation early in the process of identifying conditions at the site and in the assessment of alternatives. Public involvement, or "scoping," ensures that real problems are identified early, concentrates energies and effort on those areas requiring resolution and provides for a balanced and thorough Environmental Impact Statement. The NEPA scoping process is different from that of CERCLA.

Other Laws and Regulations

A variety of other laws or regulations also may apply to Fernald. They include:

- ☐ The Toxic Substances Control Act, which regulates certain classes of chemicals, including polychlorinated biphenyls (PCBs).
- ☐ The Clean Air Act, which controls emissions of waste into the air.
- ☐ The National Emission Standards for Hazardous Pollutants, which limits air emissions for pollutants.
- ☐ The Clean Water Act, which controls the amount of waste that can be released into surface water bodies or publicly owned treatment systems.
- ☐ The Safe Drinking Water Act, which is designed to protect drinking water resources. This law is incorporated into RCRA and CERCLA provisions dealing with groundwater protection.

Cleanup activities at Fernald also are regulated by the Amended Consent Agreement between DOE and U.S. EPA, and the Consent Decree between DOE and the Ohio Environmental Protection Agency.

For more information about this topic or about other Fernald activities and issues, contact the Office of Public Information, DOE Fernald Field Office, at (513) 648-3131.